

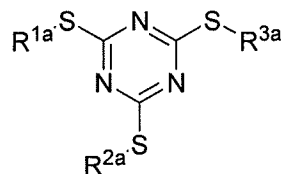
**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

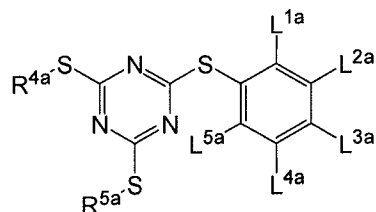
1. (currently amended): An optical material comprising a matrix formed of a polymer and at least a compound selected from a group denoted by a formula (1a) or formula (2a);

Formula (1a)



wherein R<sup>1a</sup>, R<sup>2a</sup> and R<sup>3a</sup> respectively denote ~~an optionally a~~ non-substituted alkyl group or a halogenated alkyl group;

Formula (2a);



wherein R<sup>4a</sup> and R<sup>5a</sup> respectively denote an optionally substituted alkyl group; and L<sup>1a</sup>, L<sup>2a</sup>, L<sup>3a</sup>, L<sup>4a</sup> and L<sup>5a</sup> respectively denote a hydrogen atom, a halogen atom, an optionally substituted alkyl group, an optionally substituted alkoxy group or an optionally substituted alkylthio group provided that at least two of L<sup>1a</sup>, L<sup>2a</sup>, L<sup>3a</sup>, L<sup>4a</sup> and L<sup>5a</sup> denote a halogen atom, an

optionally substituted alkyl group, an optionally substituted alkoxy group or an optionally substituted alkylthio group, and that none of  $R^{4a}$ ,  $R^{5a}$ ,  $L^{1a}$ ,  $L^{2a}$ ,  $L^{3a}$ ,  $L^{4a}$  and  $L^{5a}$  has any polymerizable group.

2. (currently amended): The optical material of claim 1 wherein the compound denoted by the formula (1a) or the formula (2a) ~~having~~ has at least one fluorine atom.

3. (currently amended): ~~The~~ A plastic optical fiber comprising the optical material of claim 1 used for a plastic optical fiber.

4. (original): A polymerizable composition for producing an optical member comprising;  
a polymerizable monomer composition and  
at least a compound, having a different refractive index from that of the polymerizable monomer composition, which is selected from the group denoted by the formula (1a) or the formula (2a).

5. (original): The polymerizable composition of claim 4 comprising a polymerization initiator.

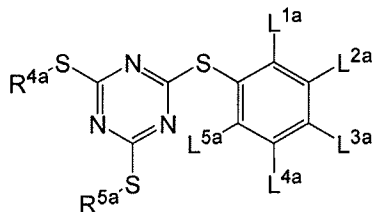
6. (original): An optical member produced by polymerization of a composition of claim 4, to form a region having a graded refractive index.

7. (currently amended): The optical member of claim 6 wherein the region ~~having~~  
a has the graded refractive index along the direction from the center to the outside.

8. (original): An optical fiber produced by drawing an optical member of claim 6.

9. (currently amended): A compound denoted by a formula (2a);

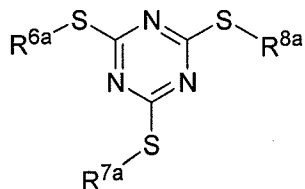
Formula (2a)



wherein R<sup>4a</sup> and R<sup>5a</sup> respectively denote an optionally substituted alkyl group; and L<sup>1a</sup>, L<sup>2a</sup>, L<sup>3a</sup>, L<sup>4a</sup> and L<sup>5a</sup> respectively denote a hydrogen atom, a halogen atom, an optionally substituted alkyl group, an optionally substituted alkoxy group or an optionally substituted alkylthio group provided that at least two of L<sup>1a</sup>, L<sup>2a</sup>, L<sup>3a</sup>, L<sup>4a</sup> and L<sup>5a</sup> denote a halogen atom, an optionally substituted alkyl group, an optionally substituted alkoxy group or an optionally substituted alkylthio group, and that none of R<sup>4a</sup>, R<sup>5a</sup>, L<sup>1a</sup>, L<sup>2a</sup>, L<sup>3a</sup>, L<sup>4a</sup> and L<sup>5a</sup> has any polymerizable group.

10. (currently amended): A compound denoted by a formula (3a);

Formula (3a)

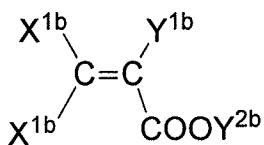


wherein  $R^{6a}$ ,  $R^{7a}$  and  $R^{8a}$  respectively denote ~~an optionally a non-~~substituted branched alkyl group or a halogenated branched alkyl group.

11. (currently amended): A polymerizable composition for producing an optical member comprising;

a polymerizable monomer composition comprising at least one polymerizable monomer denoted by a formula (1b);

Formula (1b)

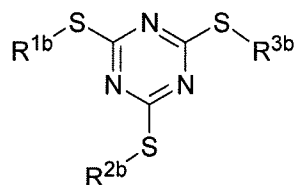


wherein  $X^{1b}$  is hydrogen (H) or deuterium (D) and two  $X^{1b}$ s may be same or different each other;  $Y^{1b}$  is H, D, fluorine (F)  $CH_3$ ,  $CD_3$  or  $CF_3$ ; and  $Y^{2b}$  is a substituted or non-substituted C1-7 alkyl group provided that  $Y^{2b}$  is a fluorine-containing C1-7 alkyl group substituted with 1 to 15 fluorine atoms when  $Y^{1b}$  is H, D,  $CH_3$  or  $CD_3$ ;

a polymerization initiator and

a compound, having a different refractive index from that of the polymerizable monomer composition, denoted by a formula (2b);

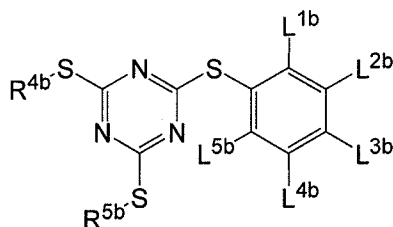
Formula (2b)



wherein  $R^{1b}$ ,  $R^{2b}$  and  $R^{3b}$  respectively denote ~~an optionally a non-~~substituted alkyl group or ~~a halogenated alkyl group~~ substituted aryl group provided that all of  $R^{1b}$ ,  $R^{2b}$  and  $R^{3b}$  ~~aren't simultaneously optionally substituted aryl groups.~~

12. (currently amended): The polymerizable composition of claim 11 wherein the compound having a different refractive index from that of the polymerizable composition is selected ~~form~~ from the group denoted by a formula (3b);

Formula (3b)



wherein  $R^{4b}$  and  $R^{5b}$  respectively denote an optionally substituted alkyl group,  $L^{1b}$ ,  $L^{2b}$ ,  $L^{3b}$ ,  $L^{4b}$  and  $L^{5b}$  respectively denote a hydrogen atom, a halogen atom, an optionally substituted alkyl group, an optionally substituted alkoxy group or an optionally substituted alkylthio group provided that at least two of them denote respectively a halogen atom, an

optionally substituted alkyl group, an optionally substituted alkoxy group or an optionally substituted alkylthio group, and that none of  $R^{4b}$ ,  $R^{5b}$ ,  $L^{1b}$ ,  $L^{2b}$ ,  $L^{3b}$ ,  $L^{4b}$  and  $L^{5b}$  has any polymerizable group.

13. (original): The polymerizable composition of claim 11 wherein the polymerizable monomer composition contains 5 to 100 weight % of the polymerizable monomer denoted by the formula (1b).

14. (original): The polymerizable composition of claim 11 wherein the polymerizable monomer denoted by the formula (1b) has at least one C-D bond.

15. (original): The polymerizable composition of claim 11 wherein  $R^{1b}$ ,  $R^{2b}$  and  $R^{3b}$  in the formula (2b) respectively denote an alkyl group substituted by at least one fluorine atom.

16. (original): An optical member produced by polymerization of a composition of claim 11, so as to form a region having a graded refractive index.

17. (currently amended): The optical member of claim 16 wherein the region ~~having a~~has the graded refractive index along the direction from the center to the outside.

18. (original): An optical fiber produced by drawing an optical member of claim

16.